

**Appendix F:**  
**Analytical Sciences Reports:**  
**#5092203 11 October 2005**  
**#5101401 25 October 2005**  
**#5101402 25 October 2005**



October 11, 2005

Karin Fresnel  
SCS Engineers  
3645 Westwind Blvd  
Santa Rosa CA, 95403

Dear Karin,

Enclosed you will find Analytical Sciences' final report 5092203 for your Schmidbauer project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

Sincerely,

Analytical Sciences

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Mark A. Valentini, Ph.D.

Laboratory Director



Report Date: October 11, 2005

## **Laboratory Report**

Karin Fresnel  
SCS Engineers  
3645 Westwind Blvd  
Santa Rosa CA, 95403

Project Name:      **Schmidbauer**                      **01203316.00**  
Lab Project:        **5092203**

This 18 page report of analytical data has been reviewed and approved for release.

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Mark A. Valentini, Ph.D.  
Laboratory Director



### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)										
5092203-01	MW-10-2.5-3.0	2,4,6-Trichlorophenol	ND	1.0										
		2,4,5-Trichlorophenol	ND	1.0										
		2,3,4-Trichlorophenol	ND	1.0										
		2,3,5,6-Tetrachlorophenol	ND	1.0										
		2,3,4,6-Tetrachlorophenol	ND	1.0										
		2,3,4,5-Tetrachlorophenol	ND	1.0										
		Pentachlorophenol	ND	1.0										
<table><tr><td>Date Sampled:</td><td>09/19/05</td><td>Date Analyzed:</td><td>10/07/05</td><td>QC Batch: B000191</td></tr><tr><td>Date Received:</td><td>09/22/05</td><td>Method:</td><td colspan="2">Canadian Pulp Method</td></tr></table>					Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch: B000191	Date Received:	09/22/05	Method:	Canadian Pulp Method	
Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch: B000191										
Date Received:	09/22/05	Method:	Canadian Pulp Method											

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)										
5092203-02	MW-10-6.5-7.0	2,4,6-Trichlorophenol	ND	1.0										
		2,4,5-Trichlorophenol	ND	1.0										
		2,3,4-Trichlorophenol	ND	1.0										
		2,3,5,6-Tetrachlorophenol	ND	1.0										
		2,3,4,6-Tetrachlorophenol	ND	1.0										
		2,3,4,5-Tetrachlorophenol	ND	1.0										
		Pentachlorophenol	ND	1.0										
<table><tr><td>Date Sampled:</td><td>09/19/05</td><td>Date Analyzed:</td><td>10/07/05</td><td>QC Batch: B000191</td></tr><tr><td>Date Received:</td><td>09/22/05</td><td>Method:</td><td colspan="2">Canadian Pulp Method</td></tr></table>					Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch: B000191	Date Received:	09/22/05	Method:	Canadian Pulp Method	
Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch: B000191										
Date Received:	09/22/05	Method:	Canadian Pulp Method											

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)										
5092203-03	MW-10-11.0-11.5	2,4,6-Trichlorophenol	ND	1.0										
		2,4,5-Trichlorophenol	ND	1.0										
		2,3,4-Trichlorophenol	ND	1.0										
		2,3,5,6-Tetrachlorophenol	ND	1.0										
		2,3,4,6-Tetrachlorophenol	ND	1.0										
		2,3,4,5-Tetrachlorophenol	ND	1.0										
		Pentachlorophenol	1.3	1.0										
<table><tr><td>Date Sampled:</td><td>09/19/05</td><td>Date Analyzed:</td><td>10/07/05</td><td>QC Batch: B000191</td></tr><tr><td>Date Received:</td><td>09/22/05</td><td>Method:</td><td colspan="2">Canadian Pulp Method</td></tr></table>					Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch: B000191	Date Received:	09/22/05	Method:	Canadian Pulp Method	
Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch: B000191										
Date Received:	09/22/05	Method:	Canadian Pulp Method											





### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-04	<b>MW-10-16.0-16.5</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	1.6	1.0

Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-05	<b>MW-11-2.5-3.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-06	<b>MW-11-5.5-6.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		



### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-07	<b>MW-11-10.5-11.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-08	<b>MW-11-15.5-16.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/19/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-09	<b>MW-12-2.5-3.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/20/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		



### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-10	<b>MW-12-5.5-6.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/20/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-11	<b>MW-12-10.5-11.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/20/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-12	<b>MW-12-15.5-16.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/20/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		



### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-13	<b>MW-13-2.5-3.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/20/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-14	<b>MW-13-6.0-6.5</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/20/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-15	<b>MW-13-10.5-11.0</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/20/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		



### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-16	<b>MW-13-16.0-16.5</b>	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	09/20/05	Date Analyzed:	10/07/05	QC Batch:	B000191
Date Received:	09/22/05	Method:	Canadian Pulp Method		

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-01	<b>MW-10-2.5-3.0</b>	pH	7.9	1.0

Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch:	B000200
Date Received:	09/22/05	Method:	SM 9040		

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-02	<b>MW-10-6.5-7.0</b>	pH	7.6	1.0

Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch:	B000200
Date Received:	09/22/05	Method:	SM 9040		

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-03	<b>MW-10-11.0-11.5</b>	pH	6.8	1.0

Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch:	B000200
Date Received:	09/22/05	Method:	SM 9040		



### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-04	MW-10-16.0-16.5	pH	6.6	1.0
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-05	MW-11-2.5-3.0	pH	7.4	1.0
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-06	MW-11-5.5-6.0	pH	7.1	1.0
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-07	MW-11-10.5-11.0	pH	7.6	1.0
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	



### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-08	MW-11-15.5-16.0	pH	7.0	1.0
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-09	MW-12-2.5-3.0	pH	7.7	1.0
Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-10	MW-12-5.5-6.0	pH	7.1	1.0
Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-11	MW-12-10.5-11.0	pH	6.9	1.0
Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	



### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-12	MW-12-15.5-16.0	pH	7.9	1.0
Date Sampled: 09/20/05 Date Analyzed: 10/10/05 QC Batch: B000200				
Date Received: 09/22/05 Method: SM 9040				

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-13	MW-13-2.5-3.0	pH	6.6	1.0
Date Sampled: 09/20/05 Date Analyzed: 10/10/05 QC Batch: B000200				
Date Received: 09/22/05 Method: SM 9040				

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-14	MW-13-6.0-6.5	pH	7.0	1.0
Date Sampled: 09/20/05 Date Analyzed: 10/10/05 QC Batch: B000200				
Date Received: 09/22/05 Method: SM 9040				

### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-15	MW-13-10.5-11.0	pH	8.0	1.0
Date Sampled: 09/20/05 Date Analyzed: 10/10/05 QC Batch: B000200				
Date Received: 09/22/05 Method: SM 9040				





### pH in Soil

Lab#	Sample ID	Compound Name	Result (pH Units)	RDL (pH Units)
5092203-16	MW-13-16.0-16.5	pH	7.4	1.0
Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000200
Date Received:	09/22/05	Method:	SM 9040	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-01	MW-10-2.5-3.0	Total Organic Carbon	1200	200
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-02	MW-10-6.5-7.0	Total Organic Carbon	4100	400
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-03	MW-10-11.0-11.5	Total Organic Carbon	5800	400
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	



### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-04	MW-10-16.0-16.5	Total Organic Carbon	2700	200

Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-05	MW-11-2.5-3.0	Total Organic Carbon	1600	200

Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-06	MW-11-5.5-6.0	Total Organic Carbon	2100	200

Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-07	MW-11-10.5-11.0	Total Organic Carbon	6600	400

Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	



### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-08	MW-11-15.5-16.0	Total Organic Carbon	6700	400
Date Sampled:	09/19/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-09	MW-12-2.5-3.0	Total Organic Carbon	1400	200
Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-10	MW-12-5.5-6.0	Total Organic Carbon	1700	200
Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-11	MW-12-10.5-11.0	Total Organic Carbon	6600	400
Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	



### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-12	MW-12-15.5-16.0	Total Organic Carbon	2900	200

Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-13	MW-13-2.5-3.0	Total Organic Carbon	1800	200

Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-14	MW-13-6.0-6.5	Total Organic Carbon	2000	200

Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	

### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-15	MW-13-10.5-11.0	Total Organic Carbon	2200	200

Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	



### Total Organic Carbon in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5092203-16	MW-13-16.0-16.5	Total Organic Carbon	2000	200

Date Sampled:	09/20/05	Date Analyzed:	10/10/05	QC Batch: B000194
Date Received:	09/22/05	Method:	Walkely-Black	



## Quality Assurance Report

### Chlorinated Phenols by Canadian Pulp Method in Soil

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B000191 - EPA 3550

##### Blank (B000191-BLK1)

Prepared & Analyzed: 10/07/05

2,4,6-Trichlorophenol	ND	1.0	mg/kg
2,4,5-Trichlorophenol	ND	1.0	mg/kg
2,3,4-Trichlorophenol	ND	1.0	mg/kg
2,3,5,6-Tetrachlorophenol	ND	1.0	mg/kg
2,3,4,6-Tetrachlorophenol	ND	1.0	mg/kg
2,3,4,5-Tetrachlorophenol	ND	1.0	mg/kg
Pentachlorophenol	ND	1.0	mg/kg

##### Matrix Spike (B000191-MS1)

Source: 5092203-01

Prepared & Analyzed: 10/07/05

2,3,5,6-Tetrachlorophenol	0.050	0.01	mg/kg	0.0148	0.03	135	30-150
2,3,4,6-Tetrachlorophenol	0.045	0.01	mg/kg	0.0148	0.03	101	30-150
2,3,4,5-Tetrachlorophenol	0.017	0.01	mg/kg	0.0148	0.008	61	30-150
Pentachlorophenol	0.060	0.01	mg/kg	0.0148	0.06	0	30-150

##### Matrix Spike Dup (B000191-MSD1)

Source: 5092203-01

Prepared & Analyzed: 10/07/05

2,3,5,6-Tetrachlorophenol	0.050	0.01	mg/kg	0.0149	0.03	134	30-150	0.7	20
2,3,4,6-Tetrachlorophenol	0.046	0.01	mg/kg	0.0149	0.03	107	30-150	6	20
2,3,4,5-Tetrachlorophenol	0.018	0.01	mg/kg	0.0149	0.008	67	30-150	9	20
Pentachlorophenol	0.069	0.01	mg/kg	0.0149	0.06	60	30-150		20



**Total Organic Carbon in Soil**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B000194 - Default Prep GenChem**

**Blank (B000194-BLK1)** Prepared & Analyzed: 10/10/05

Total Organic Carbon	ND	200	mg/kg							
----------------------	----	-----	-------	--	--	--	--	--	--	--



## Notes and Definitions

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ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference





Analytical Sciences  
P.O. Box 750336, Petaluma, CA 94975-0336  
110 Liberty Street, Petaluma, CA 94952  
(707) 769-3128  
Fax (707) 769-8093

# CHAIN OF CUSTODY

LAB PROJECT NUMBER: 5092203

ENVIRONET PROJECT NAME: Schmid Grove Lumber

ENVIRONET PROJECT NUMBER: 01203316.00

## BILLING INFORMATION

CONTACT: Rick Graham

COMPANY NAME: Schmid Grove Lumber

ADDRESS: PO BOX 152

PHONE #: 707.443.7024

FAX #:

## CLIENT INFORMATION

COMPANY NAME: SCS ENGINEERS

ADDRESS: 434 7TH STREET, SUITE B

EUREKA, CALIF 95501

CONTACT: Karin Fresnel

PHONE #: 707.476.1590

FAX #: 707.476.1589

## TURNAROUND TIME (check one)

MOBILE LAB ☐

SAME DAY ☐

24 HOURS ☐

48 HOURS ☐

72 HOURS ☐

NORMAL ☒

GeoTracker EDF: X Y N

Global ID:

COOLER TEMPERATURE  °C

Page 1 of 2

## ANALYSIS

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	PCP/TC/CHP/PPH	PH	EC	ANALYSIS	COMMENTS	LAB SAMPLE #
1.	MW-10-25-30	9/19/05	1320	S	1	✓	X	X	X	X	5092203-	01
2.	MW-10-6.5-7.0		1324	S	1	✓	X	X	X	X		02
3.	MW-10-11.0-11.5		1345	S	1	✓	X	X	X	X		03
4.	MW-10-11.0-11.5		1355	S	1	✓	X	X	X	X		04
5.	MW-11-2.5-3.0		1445		1	✓	X	X	X	X		05
6.	MW-11-5.5-6.0		1535		1	✓	X	X	X	X		06
7.	MW-11-10.5-11.0		1547		1	✓	X	X	X	X		07
8.	MW-11-15.5-16.0		1610		1	✓	X	X	X	X		08
9.	MW-12-2.5-3.0	9/20/05	0915		1	✓	X	X	X	X		09
10.	MW-12-5.5-6.0		0929		1	✓	X	X	X	X		10
11.	MW-12-10.5-11.0		0946	✓	1	✓	X	X	X	X		11

## SIGNATURES

SAMPLED BY:

Karin Fresnel  
SIGNATURE

Karin Fresnel  
DATE

9/21/05-1524  
TIME

RECEIVED BY LABORATORY:

[Signature]  
SIGNATURE

9/22/05  
DATE

1010  
TIME



Analytical Sciences  
P.O. Box 750336, Petaluma, CA 94975-0336  
110 Liberty Street, Petaluma, CA 94952  
(707) 769-3128  
Fax (707) 769-8093

# CHAIN OF CUSTODY

LAB PROJECT NUMBER: 5092203

LAB PROJECT NUMBER: 5092203

## CLIENT INFORMATION

COMPANY NAME: SCS ENGINEERS

ADDRESS: 434 7TH STREET, SUITE B

EUREKA, CALIF 95501

CONTACT: Robert Graham

PHONE #: 707.476.1590

FAX #: 707.476.1589

## BILLING INFORMATION

CONTACT: Robert Graham

COMPANY NAME: Schmidhauser & Associates

ADDRESS: PO Box 152

Eureka, CA 95502

PHONE #: 707.476.1529

FAX #: 707.476.1529

## TURNAROUND TIME (check one)

MOBILE LAB

SAME DAY

24 HOURS

48 HOURS

72 HOURS

NORMAL ☒

GeoTracker EDF: Y N

Global ID: 5092203

COOLER TEMPERATURE

°C

Page 2 of 2

## ANALYSIS

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	LAB SAMPLE #
1.	1111-13-25-30	11/13/05	11:30	1	1	1	5092203-12
2.	1111-13-25-30	11/13/05	11:30	1	1	1	5092203-13
3.	1111-13-25-30	11/13/05	11:30	1	1	1	5092203-14
4.	1111-13-25-30	11/13/05	11:30	1	1	1	5092203-15
5.	1111-13-25-30	11/13/05	11:30	1	1	1	5092203-16
6.							
7.							
8.							
9.							
10.							
11.							

## SIGNATURES

SAMPLED BY: RLC Fernald

RELINQUISHED BY: RLC Fernald

RECEIVED BY LABORATORY: 9/22/05

SIGNATURE

DATE

TIME

SIGNATURE

DATE

TIME



October 25, 2005

Karin Fresnel  
SCS Engineers  
3645 Westwind Blvd  
Santa Rosa CA, 95403

Dear Karin,

Enclosed you will find Analytical Sciences' final report 5101401 for your Schmidbauer project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

Sincerely,

Analytical Sciences

---

Mark A. Valentini, Ph.D.

Laboratory Director



Report Date: October 25, 2005

## **Laboratory Report**

Karin Fresnel  
SCS Engineers  
3645 Westwind Blvd  
Santa Rosa CA, 95403

Project Name:      **Schmidbauer**                              **01203316.00**  
Lab Project:        **5101401**

This 5 page report of analytical data has been reviewed and approved for release.

---

Mark A. Valentini, Ph.D.  
Laboratory Director



### Chlorinated Phenols by Canadian Pulp Method in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5101401-01	MW-10	2,4,6-Trichlorophenol	ND	10
		2,4,5-Trichlorophenol	ND	10
		2,3,4-Trichlorophenol	ND	10
		2,3,5,6-Tetrachlorophenol	ND	10
		2,3,4,6-Tetrachlorophenol	560	10
		2,3,4,5-Tetrachlorophenol	ND	10
		Pentachlorophenol	3600	10

Date Sampled:	10/13/05	Date Analyzed:	10/18/05	QC Batch:	B000216
Date Received:	10/14/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5101401-02	MW-11	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	7.0	1.0

Date Sampled:	10/13/05	Date Analyzed:	10/17/05	QC Batch:	B000216
Date Received:	10/14/05	Method:	Canadian Pulp Method		

### Chlorinated Phenols by Canadian Pulp Method in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5101401-03	MW-12	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	10/13/05	Date Analyzed:	10/17/05	QC Batch:	B000216
Date Received:	10/14/05	Method:	Canadian Pulp Method		



### Chlorinated Phenols by Canadian Pulp Method in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5101401-04	MW-13	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	10/13/05	Date Analyzed:	10/17/05	QC Batch: B000216
Date Received:	10/14/05	Method:	Canadian Pulp Method	



## Quality Assurance Report

### Chlorinated Phenols by Canadian Pulp Method in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B000216 - EPA 3510C\_MS

##### Blank (B000216-BLK1)

Prepared & Analyzed: 10/17/05

2,4,6-Trichlorophenol	ND	1.0	ug/L
2,4,5-Trichlorophenol	ND	1.0	ug/L
2,3,4-Trichlorophenol	ND	1.0	ug/L
2,3,5,6-Tetrachlorophenol	ND	1.0	ug/L
2,3,4,6-Tetrachlorophenol	ND	1.0	ug/L
2,3,4,5-Tetrachlorophenol	ND	1.0	ug/L
Pentachlorophenol	ND	1.0	ug/L

##### LCS (B000216-BS1)

Prepared & Analyzed: 10/17/05

2,3,5,6-Tetrachlorophenol	5.13	1.0	ug/L	5.00	103	30-130
2,3,4,6-Tetrachlorophenol	5.27	1.0	ug/L	5.00	105	30-130
2,3,4,5-Tetrachlorophenol	5.13	1.0	ug/L	5.00	103	30-130
Pentachlorophenol	5.20	1.0	ug/L	5.00	104	30-130



## Notes and Definitions

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ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference





Analytical Sciences  
P.O. Box 750336, Petaluma, CA 94975-0336  
110 Liberty Street, Petaluma, CA 94952  
(707) 769-3128

# CHAIN OF CUSTODY

LAB PROJECT NUMBER: 5101401

SCS ENGINEERS PROJECT NAME: Schmidbauer  
SCS ENGINEERS PROJECT NUMBER: 01203316.00

CLIENT INFORMATION		BILLING INFORMATION	
COMPANY NAME: SCS ENGINEERS	CONTACT: Rich Graham	COMPANY NAME: Schmidbauer Lumber	
ADDRESS: 3645 WESTWIND BOULEVARD		ADDRESS: 1099 Waterfront Drive	
SANTA ROSA, CA 95403		Eureka, CA 95502	
CONTACT: Karin Fresnel		PHONE#: 707-443-7024	
PHONE#: (707) 546-9461		FAX #:	
FAX #: (707) 544-5769			

TURNAROUND TIME (check one)	
MOBILE LAB	
SAME DAY	
24 HOURS	
48 HOURS	
72 HOURS	
NORMAL	<input checked="" type="checkbox"/>
5 DAYS	

COOLER TEMPERATURE \_\_\_\_\_ °C

COC

GEOTRACKER EDF: Y N  
GLOBAL ID: \_\_\_\_\_

PAGE 1 OF 1

## ANALYSIS

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	TPH/GAS/BTEX EPA 8015M/8020	TPH DIESEL / MOTOR OIL EPA 8015M	VOLATILE HYDROCARBONS EPA 8260 (FULL LIST)	EPA 8260 Full List + Oxy / Fuel Additives	BTEX & OXYGENATES + PB SCAVENGERS EPA 8260B	OXYGENATED FUEL ADDITIVES EPA 8260M	CHLORINATED SOLVENTS	SEMI-VOLATILE HYDROCARBONS EPA 8270	TRPH / TOG SM 5520F / EPA 418.1M	PESTICIDES / PCB'S EPA 8081 / 8141 / 8082	CAM 17 METALS / 5 LUFT METALS	PCP/TCO By Canadian Rule	Trichlorophenol	LAB SAMPLE #
1	MW-10	10/13/05	330	LIQ	5	Y/N														5101401
2	MW-11	10/13/05	335	LIQ	1	I														if PCP is detected analyze -01
3	MW-12	10/13/05	222	LIQ	1	I														to diaxons and faronox -02
4	MW-13	10/13/05	225	LIQ	1	I														Not enough -03
5																				Sample -04
6																				Volume for
7																				diagnostics
8																				burns
9																				
10																				
11																				

## SIGNATURES

RELINQUISHED BY: <u>Cherry Spindley</u>	DATE: 10/13/05	TIME:
RECEIVED BY:	DATE:	TIME:
RELINQUISHED BY:	DATE:	TIME:
RECEIVED BY:	DATE:	TIME:

RECEIVED BY LABORATORY: [Signature] 10/14/05 0825  
SIGNATURE DATE TIME



October 25, 2005

Karin Fresnel  
SCS Engineers  
3645 Westwind Blvd  
Santa Rosa CA, 95403

Dear Karin,

Enclosed you will find Analytical Sciences' final report 5101402 for your Schmidbauer project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

Sincerely,

Analytical Sciences

---

Mark A. Valentini, Ph.D.

Laboratory Director



Report Date: October 25, 2005

## **Laboratory Report**

Karin Fresnel  
SCS Engineers  
3645 Westwind Blvd  
Santa Rosa CA, 95403

Project Name:      **Schmidbauer**                      **01203316.00**  
Lab Project:        **5101402**

This 5 page report of analytical data has been reviewed and approved for release.

---

Mark A. Valentini, Ph.D.

Laboratory Director



### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5101402-01	SP-10	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	1.3	1.0
Date Sampled:	10/13/05	Date Analyzed:	10/18/05	QC Batch: B000217
Date Received:	10/14/05	Method:	Canadian Pulp Method	

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5101402-02	SP-11	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0
Date Sampled:	10/13/05	Date Analyzed:	10/18/05	QC Batch: B000217
Date Received:	10/14/05	Method:	Canadian Pulp Method	

### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5101402-03	SP-12	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0
Date Sampled:	10/13/05	Date Analyzed:	10/18/05	QC Batch: B000217
Date Received:	10/14/05	Method:	Canadian Pulp Method	



### Chlorinated Phenols by Canadian Pulp Method in Soil

Lab#	Sample ID	Compound Name	Result (mg/kg)	RDL (mg/kg)
5101402-04	SP-13	2,4,6-Trichlorophenol	ND	1.0
		2,4,5-Trichlorophenol	ND	1.0
		2,3,4-Trichlorophenol	ND	1.0
		2,3,5,6-Tetrachlorophenol	ND	1.0
		2,3,4,6-Tetrachlorophenol	ND	1.0
		2,3,4,5-Tetrachlorophenol	ND	1.0
		Pentachlorophenol	ND	1.0

Date Sampled:	10/13/05	Date Analyzed:	10/18/05	QC Batch: B000217
Date Received:	10/14/05	Method:	Canadian Pulp Method	



## Quality Assurance Report

### Chlorinated Phenols by Canadian Pulp Method in Soil

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B000217 - EPA 3550

##### Blank (B000217-BLK1)

Prepared & Analyzed: 10/17/05

2,4,6-Trichlorophenol	ND	0.005	mg/kg
2,4,5-Trichlorophenol	ND	0.005	mg/kg
2,3,4-Trichlorophenol	ND	0.005	mg/kg
2,3,5,6-Tetrachlorophenol	ND	0.005	mg/kg
2,3,4,6-Tetrachlorophenol	ND	0.005	mg/kg
2,3,4,5-Tetrachlorophenol	ND	0.005	mg/kg
Pentachlorophenol	ND	0.005	mg/kg

##### LCS (B000217-BS1)

Prepared & Analyzed: 10/17/05

2,3,5,6-Tetrachlorophenol	0.0076	0.005	mg/kg	0.0150	51	30-130
2,3,4,6-Tetrachlorophenol	0.0076	0.005	mg/kg	0.0150	51	30-130
2,3,4,5-Tetrachlorophenol	0.0084	0.005	mg/kg	0.0150	56	30-130
Pentachlorophenol	0.0070	0.005	mg/kg	0.0150	47	30-130

##### LCS Dup (B000217-BSD1)

Prepared & Analyzed: 10/17/05

2,3,5,6-Tetrachlorophenol	0.0070	0.005	mg/kg	0.0150	47	30-130	8	20
2,3,4,6-Tetrachlorophenol	0.0068	0.005	mg/kg	0.0150	45	30-130	12	20
2,3,4,5-Tetrachlorophenol	0.0080	0.005	mg/kg	0.0150	53	30-130	6	20
Pentachlorophenol	0.0064	0.005	mg/kg	0.0150	43	30-130	9	20



## Notes and Definitions

---

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference



Analytical Sciences  
P.O. Box 750336, Petaluma, CA 94975-0336  
110 Liberty Street, Petaluma, CA 94952  
(707) 769-3128

# CHAIN OF CUSTODY

LAB PROJECT NUMBER: 5101402

SCS ENGINEERS PROJECT NAME: Schmidbauer

SCS ENGINEERS PROJECT NUMBER: 01203316.00

## BILLING INFORMATION

CONTACT: Rich Graham

COMPANY NAME: Schmidbauer Lumber

ADDRESS: 1099 Waterfront Drive

Eureka, CA 95502

PHONE#: 707-443-7024

FAX #:

## CLIENT INFORMATION

COMPANY NAME: SCS ENGINEERS

ADDRESS: 3645 WESTWIND BOULEVARD

SANTA ROSA, CA 95403

CONTACT: Karin Fresnel

PHONE#: (707) 546-9461

FAX #: (707) 544-5769

## TURNAROUND TIME (check one)

MOBILE LAB ☐

SAME DAY ☐

48 HOURS ☐

5 DAYS ☒

24 HOURS ☐

72 HOURS ☐

NORMAL ☒

GEOTracker EDF: Y N

GLOBAL ID: 5101402

COOLER TEMPERATURE

°C

COC

PAGE 1 OF 1

## ANALYSIS

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	TPH/GAS/BTEX EPA 8015M/8020	TPH DIESEL / MOTOR OIL EPA 8015M	VOLATILE HYDROCARBONS EPA 8260 (FULL LIST)	EPA 8260 Full List + Oxy / Fuel Additives	BTEX & OXYGENATES + PB SCAVENGERS EPA 8260B	OXYGENATED FUEL ADDITIVES EPA 8260M	CHLORINATED SOLVENTS	SEMI-VOLATILE HYDROCARBONS EPA 8270	TRPH / TOG SM 5520F / EPA 418.1M	PESTICIDES / PCB'S EPA 8081 / 8141 / 8082	CAM 17 METALS / 9 LUFT METALS	PCB/TCDF By Canadian Rule	Trichlorophenol	COMMENTS	LAB SAMPLE #
1	SP-10	10/13/05	305	SOIL	5	NO												X	X	5101402	-01
2	SP-11	10/13/05	310	SOIL	1													X	X		-02
3	SP-12	10/13/05	300	SOIL	1													X	X		-03
4	SP-13	10/13/05	305	SOIL														X	X		-04
5																					
6																					
7																					
8																					
9																					
10																					
11																					

## SIGNATURES

RELINQUISHED BY: Amy Youdel

RECEIVED BY:

RELINQUISHED BY:

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DATE: 10/13/05 TIME:

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DATE: TIME:

RECEIVED BY LABORATORY:

SIGNATURE

DATE: 10/14/05 TIME: 825



**Appendix G:**  
**Standard Soil and Water Sampling Procedures**  
**and QA/QC Protocol**

**STANDARD  
SOIL AND WATER SAMPLING PROCEDURES  
AND QA/QC PROTOCOL**

**December 15, 2003**

**SCS ENGINEERS  
ENVIRONMENTAL CONSULTANTS  
STANDARD SOIL SAMPLING PROCEDURES**

The following outline describes the standard equipment and procedures used by SCS Engineers (SCS) personnel for the collection of soil samples for laboratory analysis.

### **Equipment**

Modified California split-spoon drive sampler, standard penetration sampler, or direct push core barrel (Drill rig sampling)

Drive sampler (hand auger samples)

Typical 1.5-inch to 2.0-inch diameter by 6.0 inch long brass or stainless steel liners and plastic end-caps. Teflon sheets or aluminum foil will also be used for samples suspected of containing volatile compounds (gasoline, aromatic hydrocarbons, solvents, etc.)

Appropriate sample holders will be used for samples suspected of containing volatile compounds (gasoline, aromatic hydrocarbons, solvents, etc.) when EPA Method 5035 sampling is required by the regulatory agency. Standard sample containers will be used when field preservation occurs for EPA Method 5035 compliance.

Typical 1.5-inch to 2.5-inch diameter by 6.0 inch long plastic or metal liners for direct push core barrel.

PID organic vapor analyzer (OVA) or equivalent Field Detector

Sampler and Sample Container Cleaning Equipment:

- Stiff-bristle brushes

- Buckets

- Detergent (Non-phosphate detergent recommended)

- Deionized/potable water

Insulated sample storage and shipping containers (ice chests) and blue ice

Insulated sample storage and shipping containers (ice chests) and dry ice for EPA Method 5035 sample holders which cannot be delivered to the laboratory within 48 hours for preservation

Personal protective equipment (generally level D protection).

### **General Sampling Procedures**

Soil samples are collected in accordance with regulatory guidance. Soil sampling procedures are updated as new guidance is provided by regulatory agencies. Sampling equipment (i.e., sample liners, auger bits, sampling devices) are pre-washed as necessary with a brush in a detergent solution, followed by double rinsing with distilled or deionized water prior to each sampling event. All new sample liners will have been pre-washed prior to use. All samples are collected in such a manner as to minimize the volatilization or oxidation due to agitation and/or mixing upon handling.

Soil samples collected by hand augering for lithologic logging, and for chemical and physical analyses are typically obtained by pounding the sample tube into the soil being tested. If an auger hole is drilled with a motorized drill rig, samples are typically collected using a drive sampler, which is driven approximately 18 to 24 inches below the depth of the auger bit. The sampling methodology may be adjusted on a case-by-case basis, depending on the suspected contaminant(s). Where required, EPA Method 5035 sample holders will be filled as rapidly as possible to prevent volatilization from either a sample sleeve or directly from the formation where feasible.

Soil samples collected from a backhoe bucket or from an accessible pit or excavation (ramped or shored) are collected by removing excess material to expose as fresh as possible soil. The sample liner is then pushed into the soil until the liner is full. Where required, EPA Method 5035 sample holders will be filled as rapidly as possible to prevent volatilization directly from the formation or from the backhoe bucket after a small amount of material is removed to expose a fresh surface where feasible.

Standard metal liners will be submitted for analysis in those circumstances where EPA Method 5035 sample holders are deemed to be unusable (gravel or extremely dense material). EPA Method 5035 preservation times will still be required of the laboratory.

When utilizing the split spoon sampler with a drill rig, the portions of the soil sample recovered in additional liners are also examined and noted for any contamination and/or changes in lithology.

The soils, when required, are classified in accordance with the Unified Soil Classification System (USCS). Sample liner ends selected for analysis are typically covered with teflon sheets and sealed with plastic end caps, stored in a cooler (4° C), and transported to a California Department of Health Services Certified Analytical Laboratory for the requested analyses (except where there is no State certification for the analysis being conducted). If storage is required prior to delivery to the laboratory or laboratory courier, the samples are stored in a secure refrigerator prior to delivery. EPA Method 5035 sample holders used to comply with EPA Method 5035 sample collection procedures will be collected and stored in a cooler (4° C), and transported to a California Department of Health Services Certified Analytical Laboratory for preservation within 48 hours of sample collection. In the event the samples cannot be delivered to the Laboratory to meet the 48 hour preservation requirement, the samples will be placed in an ice chest with dry ice and kept frozen either in the ice chest with adequate dry ice or in a secure freezer until they can be delivered to the Laboratory for proper preservation. The Laboratory may receive the samples at the job site for field preservation, in which case standard sample tubes will be used.

All sample containers are labeled in the field. The sample labels will typically contain the following information:

Sample identification number (including depth and stratigraphic position where applicable)  
Project name  
Project address  
Sampler initials  
Date of collection  
Other pertinent information

Chain-of-Custody documents are completed in the field and accompany the samples to the laboratory. The Chain-of-Custody document will typically contain the following information:

Sample identification number (including depth and stratigraphic position where applicable)  
Project name  
Project address  
Project number  
Sampler (printed and signed)  
Date and time of collection (for each sample)  
Matrix type (soil, water, etc.)  
Analyses and turn-around-time requested  
Billing Information  
Other pertinent information

### **Stockpile Sampling**

Discrete samples from thin stockpiles are collected in brass or stainless steel liners, by removing 6 inches to 1 foot of soil and driving the brass or stainless steel liner into the stockpile. Soil samples are collected from thick stockpiles containing volatile contaminants by either augering or otherwise excavating approximately one third to one half way into the pile and then driving the sample liner into the soil in the hole, or collecting a sample from the backhoe bucket. Surface or near surface samples will be collected from homogenized stockpiles containing non-volatile contaminants such as metals, motor oil, or oil and grease.

For final verification characterization, discrete soil samples will be collected at intervals required by regulation, or by the lead regulator for the disposal or treatment option selected. EPA Method 5035 sampling procedures, as indicated above, will be followed for discrete and/or verification sampling when directed by the regulatory agency and/or the receiving facility. EPA Method 5035 sampling procedures, as described above, will not be followed for composite sampling for disposal unless directed by the landfill(s) in order to profile the soil for disposal.

### **STANDARD GROUNDWATER SAMPLING PROCEDURES**

The following outline describes the standard equipment and procedures which are used by SCS personnel for the collection of groundwater samples for laboratory analysis.

### **Monitoring Well Development**

After monitoring wells are installed and prior to initial sampling of the wells, well development is conducted. Well development is conducted to create an effective filter pack around the well screen, to optimize hydraulic communication between the formation and the well screen, and to assist in restoring the natural water quality near the well. Well development is also conducted to remove fines and to remove any foreign materials introduced during drilling.

Well development will be conducted as follows:

1. Record the static water level and total well depth.
2. Set the pump and record the pumping rate. Pump until the turbidity reaches the desired level, typically measured using a turbidity meter.
3. Discontinue pumping and begin surging using a properly designed surge block and proper surging technique.
4. Measure and record well depth to determine the amount of fines and repeat Step 2.
5. Repeat surging and pumping until the well yields water of acceptable turbidity at the beginning of a pumping cycle.

Depending on the depth of the water, the hydraulic conductivity of the aquifer, and the diameter of the well, pumping may effectively achieve well development. Wells completed in very silty geologic units also may produce consistently turbid samples. Wells of this type will normally be considered to have been properly installed and developed and turbid water samples will be considered representative of mobile constituents in the aquifer.

### **Monitoring Well Sampling**

Groundwater sampling and evaluation of monitoring wells begins by removal of the well caps and measuring water levels in all monitoring wells at a site with a water level indicator. The fluid in the well is then monitored for the presence of free floating material. If free product is present in the well, its thickness is measured using an oil-water interface probe. A program of free product removal may be initiated. A groundwater sample is typically not collected from any well with confirmed free floating product unless a directive to do so is received from the regulatory agency.

All monitoring wells are typically checked for free product until authorization has been received from the lead regulatory agency that checking for free product is no longer necessary. Water levels will continue to be checked until field measurements indicate that equilibrium has been achieved from which to compute the groundwater flow direction and gradient.

If free product is not present in the well being monitored, the well is purged, with groundwater parameters such as pH, conductivity, and temperature measured after each well volume removed. This process continues until parameters being measured such as pH, conductivity, and temperature, have generally stabilized (reproducible within 10%). As a general practice, a minimum of 3 well casing volumes or until the well goes dry constitutes adequate purging. For 2-inch diameter wells, a minimum of 5 gallons of water should be removed unless the well goes dry. Wells will be purged from least to most contaminated after the initial round of sampling. The purge pump will be placed near the top of the measured water table to assure that fresh water from the formation will move upward in the screen. Water will be purged from the well at a rate that does not cause recharge water to be excessively agitated. The purge pump will be lowered into the well as necessary to achieve the desired removal of groundwater.

Once a well has been adequately purged, a groundwater sample is collected using a disposable or pre-cleaned bailer. The groundwater sample is collected from the well in containers appropriate to the analyses being conducted. As examples, 1 liter amber bottles are used for diesel/motor oil/kerosene and oil and grease analyses, 40 milliliter volatile organic analysis vials are used for gasoline BTEX, 8010, 8240, and 8260 analyses, and plastic containers are used for total and/or dissolved metals. Volatile organic analysis vials will be immediately capped after collection and placed on ice to minimize loss of volatiles. All other groundwater sample containers collected will be capped and placed in a storage container in a timely manner and as appropriate for the analysis being conducted. Proper containers, sampling collection procedures, and storage requirements will be verified with the analytical laboratory prior to sample collection. Monitoring wells at a site are purged prior to collection of samples, unless the regulatory agency has approved non-purge samples.

After the wells have been adequately purged, they will be allowed to recover to 80% of their original volume prior to sampling. Any well purged to dryness will be sampled after a sufficient volume of groundwater has entered the well to enable the collection of the necessary groundwater samples. All collected groundwater samples are stored in an ice chest on blue ice and transported under Chain-of-Custody documentation. The samples are either transported directly to the analytical laboratory on the day of collection, delivered to the laboratory courier on the day of collection, or are returned to SCS's office where they are stored in a secure refrigerator and then delivered to a California Department of Health Services Certified Analytical Laboratory or a laboratory courier for the requested analyses (except where there is no State certification for the analysis being conducted). Every effort will be made to assure that sample storage will not exceed 72 hours before delivery of the samples to either the laboratory or the laboratory courier. Samples being analyzed for constituents with a longer holding time, such as metals, may be stored for a longer period of time, provided the holding time is not exceeded, before delivery to the laboratory.

Where more than one site is sampled on the same day by the sampler, samples from each site will be stored in separate ice chests. If feasible, samples suspected of being highly impacted will be stored separately from samples which are presumed to be clean. To the extent feasible, samples will be separated based on site and suspected degree of impact while awaiting delivery to or pick up by the analytical laboratory.

All purged fluid is stored on-site in DOT 55-gallon drums pending analysis. The drums and the fluid in the drums are the exclusive property and responsibility of the responsible party. SCS typically samples the drums and arranges for disposal at the appropriate time.

### **Grab Water Samples**

Grab water samples may be collected from the pits, borings, discrete sampler borings, creeks, ponds, and any other bodies or vessels containing water. If the water sample can be safely collected by hand, it will be, otherwise, a disposable bailer will typically be used to collect the sample.

All collected grab water samples will be stored on ice and transported under Chain-of-Custody documentation. The samples will either be delivered directly to the analytical laboratory or to the analytical laboratory courier on the day of the collection, or they will be returned to SCS' office where they will be stored in a secure refrigerator a maximum of 72 hours, and then delivered to a California Department of Health Services Certified Analytical Laboratory for the requested analyses (except where there is no State certification for the analysis being conducted) or the laboratory courier. Again, samples being analyzed for constituents with a longer holding time, such as metals, may be stored for a longer period of time before delivery to the laboratory.

Typically, no purge water will be generated during grab water sampling. Should purging occur, the purge water will be stored on-site in either a DOT 55-gallon drum, or other appropriate vessel, pending analysis. Industry standards are that drums and all produced water are the exclusive property and responsibility of the responsible party. SCS will typically sample such containers and arrange for disposal at the appropriate time.

### **Sample Handling-QA/QC Elements**

#### **Sample Handling**

The elapsed time between sample collection and delivery to the laboratory or the laboratory courier will typically not exceed 72 hours. Again, samples being analyzed for constituents with a longer holding time, such as metals, may be stored for a longer period of time before delivery to the laboratory, providing the holding time is not exceeded.



Sealed sample containers will only be opened by laboratory personnel during the specified sample extraction process.

### **Chain-of-Custody**

In order to document and trace sample possession from time of collection, a Chain-of-Custody record will be filled out on the Chain-of-Custody document by the sampler for each sample collected. The Chain-of-Custody document will accompany the sample(s) through laboratory analysis. The completed Chain-of-Custody record for each sample will be included in the analytical report from the laboratory.

### **Blanks**

Blanks will be used or collected as part of the sampling program at the discretion of the project manager and/or the lead regulatory agency. Trip and/or field blanks will be supplied and analyzed along with the samples, at the discretion of the project manager and/or the lead regulatory agency.

### **Modifications**

Any modification to the standard sampling procedures and QA/QC protocol outlined in this document for either soil or water samples will be noted and fully explained in the sampling report.

## **PERSONAL PROTECTION**

Sampling at environmental sites increases the chance of exposure of the sampling technician to chemicals which pose a threat to the environment and may pose a threat to the sampler's short-term and/or long-term health at the concentrations present. Each site will be evaluated prior to conducting any field work to ascertain the chemicals detected in the past, the chemicals likely to be detected in the future, and the likely concentrations of those chemicals to be detected. The chemicals will be evaluated for possible routes of exposure at the concentrations likely to be encountered. Appropriate personal protective equipment to prevent contact with contaminants shall be used. Appropriate chemical-specific gloves shall be worn and changed between sampling events.

In the event the sampler observes or detects activities occurring on or around the site which could cross contaminate collected samples, the sampler will suspend sampling until the activities which may lead to cross contamination cease. If necessary, the sampler will abort the sampling event. Any aborted sampling event will be rescheduled after the suspicious activities are indicated to have ceased, or the activities can be halted during the sampling event. Any suspension or aborting of sampling will be immediately reported to the appropriate registered professional.

Site-specific protection measures are outlined in the Site Health and Safety Plan, where active investigation and/or remediation is occurring.

**Active Investigation and/or Remediation**  
(Refer to Site Specific Health and Safety Plan)

Required personal protective equipment:

Hardhats  
Steel toed boots

Recommended personnel protective equipment:

Eye protection  
Hearing protection  
Gloves to protect against dermal contact with contaminants  
Skin protection from sunlight  
Photoionization detector/Gas Tech  
Respirator (NIOSH approved with appropriate filters for contaminants detected or expected)  
Detergent wash and rinse water  
First aid kit  
Fire extinguisher  
Route map to and phone number of nearest hospital

As indicated above, each site must be evaluated on a case-by-case basis to determine the appropriate personal protection materials to use and personal protection activities to implement in the field. As an example, several sun tan lotions contain chemicals which are detected in the diesel range. Care must be taken to prevent cross contamination by sun tan lotion at diesel impacted sites.

**Passive Investigation**

Recommended personnel protective equipment:

Skin protection  
Eye protection  
Gloves to protect against dermal contact with contaminants  
Detergent wash and rinse water  
First aid kit  
Fire extinguisher  
Route map to and phone number of nearest hospital

As indicated above, each site must be evaluated on a case-by-case basis to determine the appropriate personal protection materials to use and personal protection activities to implement in the field. If a site is known to be heavily impacted, wells should be sampled from the cleanest to most impacted to minimize the potential for cross contamination. The potential for cross contamination can be further minimized by wearing disposable gloves and disposing of gloves after each sample is collected. As an alternative, hands can be washed and rinsed between each sampling event. Where contaminants are non-volatile and do not migrate readily, such as metals, personal protection can be modified to match the primary routes of exposure, which are inhalation and ingestion. In this case it may be appropriate to wear a dust mask if excessive dust is created during sampling. Washing of hands and face before eating or drinking is highly recommended. Protection of clothing by wearing Tyveks is also to be considered, along with washing clothing after each use in conditions where significant dust is created.

Personal protection is designed to prevent or minimize the exposure to the sampler of chemicals or substances which may adversely impact either the short-term or long-term health of the sampler. It is the sampler's responsibility to adequately protect themselves from exposure. All samplers are encouraged to protect themselves and their health to the extent feasible while in the field. All materials necessary to provide adequate protection are available and should be utilized as appropriate.

Cross contamination is to be minimized at all times while sampling. In some instances, proper use and implementation of personal protection will also aid in minimizing cross contamination. The sampler is very highly encouraged to implement proper personal protection, especially where it further minimizes the risk of cross contamination of samples.

**Appendix H:**  
**Well Survey Report**

**SURVEY RESULTS OF 4 MONITOR WELLS  
FOR  
SCHMIDBAUER MILL SITE  
AT  
FOOT OF CLARK STREET, EUREKA, CALIFORNIA  
SCS ENGINEERS JOB NO. 01203316  
(APN 03-072-04 & 07)**

<b>Monitor Well No.</b>	<b>Northing</b>	<b>Easting</b>	<b>Surface Elevation</b>
MW-10	540579.8920	1396428.6816	11.72
MW-11	540570.4761	1396364.5267	11.58
MW-12	540642.6469	1396312.2208	11.74
MW-13	540548.7185	1396258.7696	11.30

-Elevation Datum is NAVD 1988 (Subtract 3.31 to obtain 1929 MSL Datum).

-Horizontal Datum is NAD 1927, based on State Plane Coordinate System 1927 (California Zone I).